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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,988	04/18/2001	Scott Douglas Olmstead	LUC-307/OLMSTEAD 3-1-1-2	9065
32205	7590	11/28/2003	EXAMINER FOX, BRYAN J	
PATTI & BRILL ONE NORTH LASALLE STREET 44TH FLOOR CHICAGO, IL 60602			ART UNIT 2686	PAPER NUMBER 6

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/836,988

Applicant(s)

OLMSTEAD ET AL.

Examiner

Bryan J Fox

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8, 10-13, and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Mills (US005890063A).

Regarding claim 1, Mills discloses a system to transport signals to a mobile station ported from one HLR to another HLR where mobile subscribers relocate from a first service area served by a first HLR to a second service area served by a second HLR (see column 1, lines 39-42), which reads on the claimed “migrating subscribers from a first network to a second network”. The system transfers an IAM from another network, or incoming signal (see column 8, lines 9-10) from the GMSC 80 a in a first network to the GMSC 80 b in a second network (see column 8, lines 34-41), which reads on the claimed “transferring at least one connection from at least one other network to a gateway mobile switching center of the second network” and “directing a call from the at least one other network to a subscriber at the first network to the gateway mobile switching center of the second network”.

Regarding claim 2, Mills discloses that the GMSC requests the routing information for a call from the HLR and reroutes the call to the MSC called for by the HLR (see column 1, lines 27-38), which reads on the claimed “querying, by the gateway

mobile switching center of the second network, a home location register of the second network, for routing information for the call".

Regarding claim 3, Mills discloses a system where the GMSC queries one HLR and if the mobile station has been ported to another network the HLR returns routing information for the second HLR which corresponds to the ported mobile station and routes the call to the MSC of the second network (see column 2, lines 62-67 and column 3, lines 1-7), which reads on the claimed "when routing information for the call is not available at the home location register of the second network, routing the call to the first network".

Regarding claim 4, Mills discloses that if an incoming signal is received by the original network that is intended for the new network, the new network address is returned to the GMSC (see column 2, lines 62-67 and column 3, lines 1-4). By returning the new network address to the GMSC, the original network is informing the GMSC that routing information is not available in its network.

Regarding claim 5, Mills discloses that in general, a network analyzes the MSIDN to determine the HLR associated with the mobile station dialed, retrieves the routing information from the HLR and routes the call to that mobile station (see column 1, lines 27-28), which reads on the claimed "when routing information for the call is available at the home location register of the second network, routing the call to the second network".

Regarding claim 6, Mills discloses that when a mobile station 30 is ported from one network to another, a signal with the new network address data is sent to the HLR

of the original network notifying it that the station has been ported to a new network (see column 7, lines 40-66), which reads on the claimed “sending, to a home location register of the first network, a message notifying the first network that a subscriber associated with the call is active on the second network”.

Regarding claim 8, Mills discloses that pre-existing subscriber agreements with the first HLR is terminated and a new subscriber agreement is established with the second HLR (see column 1, lines 42-45), which reads on the claimed “registering subscribers from the first network at a home location register of the second network”.

Regarding claims 10 and 16, Mills discloses a system where a call, which may originate from any network, is directed to a subscriber at another network (see column 1, lines 26-29 and figure 2), which reads on the claimed “receiving, at a second network, a call directed to one of a first network and a second network, wherein the call originated at a third network”. The system retrieves routing information from the HLR to connect the call (see column 1, lines 29-36), which reads on the claimed “querying a home location register of the second network to obtain routing information for the call”.

Regarding claims 11 and 17, Mills discloses a system where the GMSC queries the HLR of the original network and if the mobile station has been ported to another network the HLR returns routing information for the second HLR which corresponds to the ported mobile station and routes the call to the MSC of the second network (see column 2, lines 62-67 and column 3, lines 1-7), which reads on the claimed “when routing information for the call is not available at the home location register of the

second network, routing the call to the first network” and must include a router to do the same, as claimed.

Regarding claims 12 and 19, Mills discloses that in general, a network analyzes the MSIDN to determine the HLR associated with the mobile station dialed, retrieves the routing information from the HLR and routes the call to the MSC serving that mobile station (see column 1, lines 27-38), which reads on the claimed “when routing information for the call is available at the home location register of the second network, routing the call to the second network” in claim 12 and also “a router arranged and constructed to route the call to the second network when routing information for the call is available at the home location register of the second network” in claim 19.

Regarding claims 13 and 21, Mills discloses that the GMSC receives the call and retrieves routing information from the HLR (see column 2, lines 62-67) and also routes the call (see column 3, lines 1-6).

Regarding claim 18, Mills discloses a system where the GMSC queries the HLR of the original network and if the mobile station has been ported to another network the HLR returns routing information for the second HLR which corresponds to the ported mobile station and routes the call to the MSC of the second network (see column 2, lines 62-67 and column 3, lines 1-7), which reads on the claimed “router arranged and constructed to route the call to a gateway mobiles switching center of the first network when routing information for the call is not available at the home location register of the second network”.

Regarding claim 20, the system disclosed by Mills routes the call to one of the networks based on the routing information retrieved from the HLR for the call (see column 4, lines 3-16).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills.

Regarding claim 7, Mills discloses that the networks can be GSM (see column 1, lines 22-23). Mills fails to disclose that the first network is a TDMA network. The examiner takes official notice that a TDMA network is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a TDMA network in the first network of Mills in order to have the advantages of a TDMA network such as improved system capacity and low noise.

Regarding claim 9, the system in Mills discloses that upon porting a station, the pre-existing subscriber agreement with the original network must be terminated. Mills fails to teach that the first network would be decommissioned when all the subscribers from the first network are registered at the second network. It would have been obvious to one skilled in the art at the time of the invention to decommission the first network if all stations were ported and therefore all subscriber agreements terminated in order to reduce operating costs such as power consumption and maintenance.

Regarding claim 14 Mills discloses that the networks can be GSM (see column 1, lines 22-23). Mills fails to disclose that the first network is a TDMA network. The examiner takes official notice that a TDMA network is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a TDMA network in the first network of Mills in order to have the advantages of a TDMA network such as improved system capacity and low noise.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Gallagher et al. (US005933784A).

Regarding claim 15, the system disclosed by Mills fails to teach the use of a dual-mode home location record.

Gallagher et al. discloses the use of a dual-mode HLR (see column 2, line 35).

It would have been obvious to one skilled in the art at the time of the invention to modify Mills with Gallagher to include the above dual-mode HLR in order to enable communications between two incompatible systems.



**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J Fox whose telephone number is (703) 305-0997. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-9802.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

BJF

*Nguyen V*  
11-24-2003

NGUYEN T. VO  
PRIMARY EXAMINER